

# METHOD AND APPARATUS FOR MULTIPLE ACCESS OVER A COMMUNICATION CHANNEL

## ABSTRACT OF THE DISCLOSURE

This invention is a multiple access communication technique by which a  
5 multitude of transmitters communicate with receivers using direct sequence spread spectrum  
signaling. The direct sequence codes are reused by a large number of simultaneous  
transmitters, so the system is named Code Reuse Multiple Access ("CRMA"). This reuse  
method requires only a small number of codes relative to the number of simultaneous  
transmitters, and can use as few as one code for all the users. The direct sequence codes are  
10 not required to have special properties such as maximal length. The lengths of the spreading  
codes employed are not necessarily related to the bit or symbol interval. CRMA can be  
implemented on a Paired Carrier Multiple Access ("PCMA") system with or without a novel  
receiver structure which is also described.

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